Station 2
Explore and Elaborate

Today's Essential Questions:

- ✓ What determines sound volume?
- ✓ What determines sound pitch?
- ✓ Are sound pitch and sound volume related?

Activity 1: LOUDER!!

Questions:

- ➢ What factors affect the pitch of a vibrating object?
- ➢ What factors affect the volume of a vibrating object?

You will use ONLY rubber bands to do this investigation

Task One:	List all of the variables that you can control with regard to the rubber bands.
Task Two:	Develop a testable hypothesis for each of the questions above.
Task Three:	Develop a plan for testing your hypothesis for each question.
Task Four:	Test your hypothesis, make observations, record data and conclusions.

Station 2
Explore and Elaborate

Today's Essential Questions:

- ✓ What determines sound volume?
- ✓ What determines sound pitch?
- ✓ Are sound pitch and sound volume related?

Activity 2: Bottle Band

Questions:

- ➢ How does different levels of water in the bottle affect the pitch of the sound?
- ➢ Are there ways to make different pitches with the same bottle?

Task One: Obtain three empty bottles. Add a different amount of water to each bottle. Investigate the pitch of the sound that results when you tap the side of the bottle with the butter knife.

Task Two: Use at least 5 bottle with 5 different amounts of water to create a musical instrument. Try to produce a familiar tune with the bottle. Write down directions for other students to play your tune.

Task Three: Investigate other ways to make a sound with the bottles that do not involve hitting it with the butter knife. Is the pitch the same? Explain in your journal why or why not.